discussion, the Applicant submits that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102. Thus, the Applicant believes that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 1-13 UNDER 35 U.S.C. § 102

A. Claims 1 and 7

The Examiner rejected claims 1 and 7 in Paragraph 3 of the Final Office Action as being unpatentable over Shapiro (U.S. patent 5,563,960, issued October 8, 1996). The rejection is respectfully traversed.

Shapiro teaches a method and apparatus for emphasizing a selected portion of an image during a coding process. Specifically, Shapiro allocates more bits to a selected region of an image at the expense of other regions of the image (See Shapiro, Abstract). Once bit allocation is performed on the image, Shapiro codes the image using _conventional_ subband decomposition and creates a bitstream comprising header bits and data bits representative of the image (See Shapiro, Figure 1, and column 3, lines 46-50).

However, Shapiro fails to teach or suggest a payload _having at least one texture unit consisting only of AC coefficients from a single subband of a hierarchical subband decomposed image_. Specifically, Applicant's claims 1 and 7 positively recite:

> 1. A data structure stored on a computer readable medium comprising:
>   a packet header; and
>   a payload _having at least one texture unit consisting only of AC coefficients from a single subband of a hierarchical subband decomposed image_. (emphasis added)

> 7. A method for packetizing a hierarchical subband decomposed image having a plurality of decomposition levels, said method comprising the steps of:
>   (a) generating a packet header; and
>   (b) generating a payload _having at least one texture unit consisting only of AC coefficients from a single subband of the hierarchical subband decomposed image_. (emphasis added)

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Applicant's invention teaches a method and apparatus for packetizing a data structure that improves error resilience when applied to the coding of hierarchical subband decomposed coefficients. Namely, if an error occurs in a packet or a portion thereof, the overall amount of information that is lost is minimized. <u>In one embodiment, Applicant's invention generates a data structure having a packet header and a payload having at least one text unit consisting of only of AC coefficients from a single subband of the hierarchical subband decomposed image</u>.

In the Final Office Action, the Examiner cited to Figures 1-2, item 40 and Figure 2, item 54 of Shapiro which teach data bits of an incoming bitstream at the decoder. Additionally, the Examiner cited to Figure 3 and column 4, lines 1-28 of Shapiro which disclose a standard wavelet decomposition of an image. Thus, at best, Shapiro teaches a payload having data bits having a format of standard wavelet decomposition. However, <u>such a standard wavelet decomposition does not, by itself, teach or suggest packetizing at least one texture unit consisting only of AC coefficients from a single subband of the hierarchical image</u>. Therefore, the Applicant respectfully submits that claims 1 and 7 fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

The Examiner, in Paragraph 4 of the Final Office Action, stated that Applicant's arguments in the response to the Office Action amounted to a "general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references." Specifically, the Examiner stated "In response to applicant's arguments regarding claim 1 and 7, the recitation <u>specific packetizing methods</u> has not been given any patentable weight because the recitation occurs in the preamble. ... In addition, the term specific is not present any where in the claim." The Examiner further noted "in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., specific) are not recited in the rejected claim(s)." The Applicant respectfully disagrees with the Examiner's interpretation of Applicant's response to the Office Action.

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The Examiner has misconstrued Applicant's response to the Office Action. In the response to the Office Action, the Applicant mentioned "Thus, without any teaching as to specific packetizing methods, Shapiro [further] fails to teach a texture unit consisting only of AC coefficients from a single subband of the hierarchical subband decomposed image." The meaning of this statement is clear when read in context with the previous sentence. Since Shapiro does not describe how different subband coefficients are packetized in the payload, it follows that Shapiro cannot teach any packetizing method or packetized configuration of the payload. Thus, the word "specific" was used to indicate that Shapiro does not teach any particular packetized configuration of the payload. The word "specific" was **not** used to indicate a limitation in the claims. It is used to convey the inapplicability of the Shapiro reference against Applicant's invention.

The Examiner noted that "the examiner is entitled to give the broadest reasonable interpretation to the language of the claims." Using this principle, the Examiner considered "Shapiro's data bits [40] representative of the encoded image ... to be Applicant's payload having claimed features within the broad meaning of the term." The Applicant respectfully disagrees.

Using the Examiner's argument, Applicant's invention is anticipated, since the mere disclosure of payload or data bits in Shapiro would broadly disclose the claimed features of the payload in claims 1 and 7. The application of such an argument would render all possible representations including those that have yet to be invented of a payload as being anticipated. However, this argument is not the standard of 35 U.S.C. § 102. The correct standard under 35 U.S.C. § 102 is whether a single reference teaches every element of the claim. See MPEP 2131. Applying the correct standard to the cited reference, Shapiro teaches a payload that contains data bits representative of an encoded image. However, Shapiro is devoid of any teaching of a payload having at least one texture unit consisting only of AC coefficients from a single subband of the hierarchical image. As such, Shapiro fails to teach every element in claims 1 and 7 of Applicant's invention.

Therefore, the Applicant respectfully submits that claims 1 and 7 fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

B. Claims 2 and 8

The Examiner rejected claims 2 and 8 in Paragraph 3 of the Final Office Action as being unpatentable over Shapiro. The rejection is respectfully traversed.

Shapiro also fails to teach or suggest a payload <u>having at least one texture unit consisting only of AC coefficients from all subbands of a decomposition level of a hierarchical subband decomposed image</u>. Specifically, the Applicant's claims 2 and 8 positively recite:

> 2. A data structure stored on a computer readable medium comprising:
> a packet header; and
> a payload <u>having at least one texture unit consisting only of AC coefficients from all subbands of a decomposition level of a hierarchical subband decomposed image</u>. (emphasis added)

> 8. A method for packetizing a hierarchical subband decomposed image having a plurality of decomposition levels, said method comprising the steps of:
> (a) generating a packet header; and
> (b) generating a payload <u>having at least one texture unit consisting only of AC coefficients from all subbands of a decomposition level of the hierarchical subband decomposed image</u>. (emphasis added)

The Examiner also cited to Figure 3 and column 4, lines 1-28 of Shapiro as teaching a payload "having at least one texture unit only of AC coefficients from all subbands of a decomposition level of the hierarchical subband decomposed image." The Applicant respectfully disagrees.

As discussed above in Section II.A, the cited section is <u>totally devoid</u> of any teaching or suggestion of a payload having a texture unit consisting only of AC coefficients. Thus, the cited section cannot teach or suggest a texture unit consisting only of AC coefficients from all subbands of a decomposition level of the hierarchical subband decomposed image as in claims 2 and 8 of Applicant's

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invention. Therefore, the Applicant respectfully submits that claims 2 and 8 fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

C. Claims 3-5 and 9-11

The Examiner rejected claims 3-5 and 9-11 in Paragraph 3 of the Final Office Action as being unpatentable over Shapiro. The rejection is respectfully traversed.

Shapiro also fails to teach or suggest a payload <u>having a texture unit consisting only of AC coefficients across n subbands, where n represents a number smaller than a number of decomposition levels of a hierarchical subband decomposed image</u>. Specifically, the Applicant's claims 3 and 9 positively recite:

> 3. A data structure stored on a computer readable medium comprising:
> a packet header; and
> a payload <u>having a texture unit consisting only of AC coefficients across n subbands, where n represents a number smaller than a number of decomposition levels of a hierarchical subband decomposed image</u>.
> (emphasis added)

> 9. A method for packetizing a hierarchical subband decomposed image having a plurality of decomposition levels, said method comprising the steps of:
> (a) generating a packet header; and
> (b) generating a payload <u>having a texture unit consisting only of AC coefficients across n subbands, where n represents a number smaller than a number of the decomposition levels of the hierarchical subband decomposed image</u>. (emphasis added)

The Examiner cited to Figures 3-5 and column 4, lines 1-28 of Shapiro as teaching a payload "having a texture unit consisting only of AC coefficients across n subbands, where n represents a number smaller than a number of the decomposition levels of the hierarchical subband decomposed image." The Applicant respectfully disagrees.

As discussed above in Sections II.A, and II.B, Figure 3 and column 4, lines 1-28 of Shapiro is <u>totally devoid</u> of any teaching or suggestion of a payload having a texture unit consisting only of AC coefficients. Figure 4 is directed to a parent-child relationship of an image decomposed to three scales. Figure 5 teaches an

encoder having a filter means for performing standard hierarchical decomposition. Thus, Figures 4 and 5 also fail to teach or suggest a packet having a texture unit consisting only of AC coefficients.

Thus, the cited sections fail to teach or suggest a texture unit consisting only of AC coefficients from n subbands, where n represents a number smaller than a number of the decomposition levels of the hierarchical subband decomposed image as in claims 3 and 9 of Applicant's invention. Therefore, the Applicant respectfully submits that claims 3 and 9 fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

Furthermore, claims 4-5 and 10-11 depend directly from claims 3 and 9 respectively, and recite additional features therefor. As Shapiro fails to teach Applicant's invention, as recited in claims 3 and 9, dependent claims 4-5 and 10-11 also fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

D. Claims 6 and 12

The Examiner also rejected claims 6 and 12 in Paragraph 3 of the Final Office Action as being unpatentable over Shapiro. The rejection is respectfully traversed.

Shapiro also fails to teach or suggest a payload <u>having a texture unit comprising bits from a plurality of DC transform coefficients that form a single bitplane</u>. Specifically, the Applicant's claims 6 and 12 positively recite:

> 6. A data structure stored on a computer readable medium comprising:
> a packet header; and
> a payload <u>having a texture unit comprising bits from a plurality of DC transform coefficients that form a single bitplane</u>. (emphasis added)

> 12. A method for packetizing a hierarchical subband decomposed image having a plurality of decomposition levels, said method comprising the steps of:
> (a) generating a packet header; and
> (b) generating a payload <u>having a texture unit comprising bits from a plurality of DC transform coefficients that form a single bitplane</u>.
> (emphasis added)

The Examiner also cited to Figures 3-5 and column 4, lines 1-28 of Shapiro as teaching a payload "having a texture unit comprising bits from a plurality of DC transform coefficients that form a single bitplane." The Applicant respectfully disagrees.

As discussed above in Section II.A., the cited section in Shapiro is directed to a <u>standard</u> wavelet hierarchical subband decomposition of an image. However, the cited section is also <u>devoid</u> of any teaching or suggestion of a payload having texture unit comprising bits from a plurality of DC transform coefficients that form a single bitplane. The important aspect of Applicant's invention is the specific manner of packetization of the subband coefficients to effect error resilience. Thus, Applicant's claims are **not** so broad as to read on the standard subband decomposition method. Therefore, the Applicant respectfully submits that claims 6 and 12 fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

E. Claim 13

The Examiner also rejected claim 13 in Paragraph 3 of the Final Office Action as being unpatentable over Shapiro. The rejection is respectfully traversed.

Shapiro also fails to teach or suggest a payload carrying coefficients, <u>where said payload has a payload size that varies in accordance with coefficients from a subband or decomposition level of said hierarchical subband decomposed image</u>. Specifically, the Applicant's claim 13 positively recites:

> 13. A method for packetizing a hierarchical subband decomposed image having a plurality of decomposition levels, said method comprising the steps of:
> (a) generating a packet header; and
> (b) generating a payload for carrying coefficients, <u>where said payload has a payload size that varies in accordance with coefficients from a subband or decomposition level of said hierarchical subband decomposed image</u>. (emphasis added)

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The Examiner also cited to Figures 3-5 and column 4, lines 1-28 of Shapiro as teaching a payload for carrying coefficients "where said payload has a payload size that varies in accordance with coefficients from a subband or decomposition level of said hierarchical subband decomposed image." The Applicant respectfully disagrees.

As discussed above in Section II.A., the cited section is directed to a standard wavelet hierarchical subband decomposition of an image. However, the cited section is devoid of any teaching or suggestion of a payload having a variable payload size, much less a payload size that varies with coefficients from a subband or decomposition level of a hierarchical subband decomposed image. Therefore, the Applicant respectfully submits that claim 13 fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.
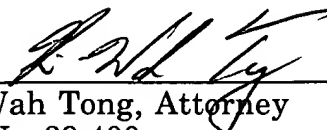
Conclusion

Thus, the Applicant submits that all of these claims now fully satisfy the requirements of 35 U.S.C. §102. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of the present adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

_2/20/01_

Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

Thomason, Moser & Patterson, LLP
595 Shrewsbury Avenue
Suite 100
Shrewsbury, New Jersey 07702

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